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## VARACTOR WITH EXTENDED TUNING RANGE

## **Abstract**

The invention proposes a device for high-frequency and/or radio-frequency tuning comprising within one IC-package a first variable capacitor ( $C_1$ ) and at least one second capacitor ( $C_2$ ), each of the at least one second capacitor ( $C_2$ ) being fixed or variable respectively, at least one signal path connected to the first variable capacitor ( $C_1$ ) and providing at least one input and one output port (rf-port1, rf-port2) and at least one controllable switching means ( $S_{C2}$ ) for individually connecting and disconnecting at least one of the at least one second capacitor ( $C_2$ ) into the signal path or from the signal path, in particular in parallel to the first variable capacitor ( $C_1$ ).